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(54) Title: ADAPTIVE SCHEDULING OF VOICE TRAFFIC IN A MULTI-CARRIER COMMUNICATION ENVIRONMENT
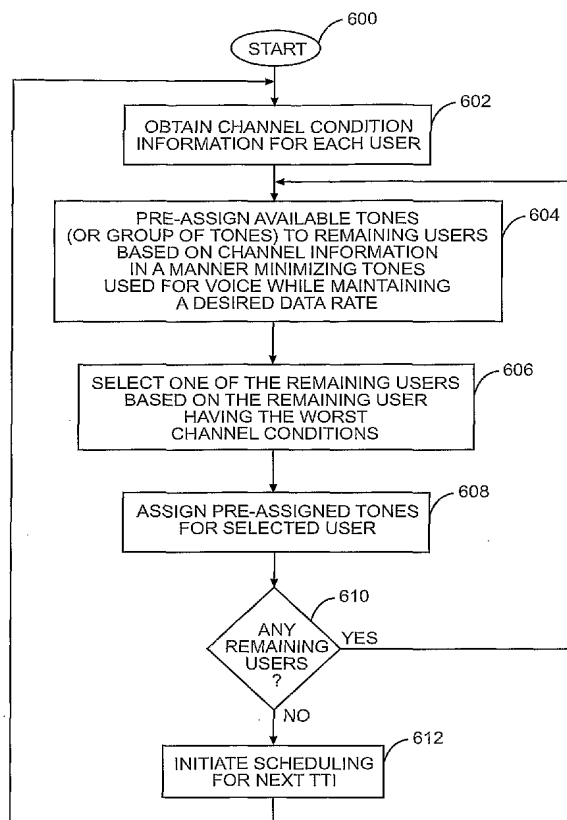
(57) Abstract: The present invention provides a technique for scheduling data, and in particular, scheduling real-time or voice data for transmissions during a transmit time interval in a multi-carrier communication environment. For each transmit time interval, channel condition indicia for multiple users is determined, and an iterative scheduling process is then implemented based in part on the channel condition indicia. The iterative scheduling initially preassigns select tones for each of the remaining users that have not been permanently assigned tones for the given transmit time interval. Next, the remaining user having the least favorable channel conditions is selected as an active user. The newly selected active user is then permanently assigned the select tones that were initially pre-assigned to that particular user. The permanently assigned tones are removed from consideration, and the process is repeated until all the remaining users are permanently assigned unique tones for scheduling.

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